Request Programming in 2012 SHOPP

PROJECT LOCATION: In San Mateo County on Route 101 at Various Locations

APPROVAL RECOMMENDED:

Jeanne Gorham 9-15-11
JEANNE GORHAM, DISTRICT PROGRAM MANAGER

APPROVAL RECOMMENDED:

LAWRENCE A. JONES, PROJECT MANAGER

APPROVED:

BIJAN SARTIPI, DISTRICT DIRECTOR — *DATE* 9-15-11

This project initiation document has been prepared under the direction of the following Registered Civil Engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

REGISTERED CIVIL ENGINEER — *DATE* 9/14/11

REGISTERED PROFESSIONAL ENGINEER
ARLISSA PANG
No. 38595
Exp. 03-31-13
CIVIL
STATE OF CALIFORNIA

1. Initiating Office/Initiator:

The District 4 Program Manager for the Roadside Safety Improvement Program has established that a roadside safety project is needed along Route 101 between PM 0.0 and 20.0 that meets the qualification for the 201.235 Program.

This Small Capital Value Project (SCVP) project initiation document (PID) provides conceptual approval of the proposal and a recommendation to program the project into the 2012 State Highway Operation and Protection Program (SHOPP.) A project report will serve as final approval of the proposal.

2. Purpose and Need:

Purpose:

The purpose of the ROADSIDE SAFETY IMPROVEMENTS (201.235) Program is to minimize the frequency and duration of highway worker exposure to traffic by providing safe access to work areas and by providing features to reduce repetitive maintenance activities. The program originated as the result of annual Caltrans statewide stand-down meetings to improve safety for Caltrans employees as well as the travelling public.

The program provides off pavement access areas that can be used by highway workers for landscape, electrical, and roadway maintenance; litter pickup crews; the motoring public for emergencies; and the California Highway Patrol for traffic control. Safety improvement measures under this program also include relocating existing roadside facilities to safe work locations away from the travelled way; paving extended gore areas, narrow areas, and some slopes adjacent to bridge structures; providing vegetation control treatments under existing guardrail, in low visibility areas and along the road edge.

Need:

Installation of roadside safety improvements such as gore area paving, maintenance vehicle pullouts (MVPs,) and access gates, will decrease worker exposure. Currently, the maintenance of the unpaved gore areas must be performed manually requiring daytime lane closures exposing maintenance workers to high speed traffic on the heavily congested routes in the Bay Area. In areas lacking adequately located MVPs or access gates, often times maintenance vehicles are forced to use the shoulders or other less desirable area to park in order to be in the vicinity of the work.

The Department's Maintenance work force has declined in size over time and is likely to continue to decline due to State fiscal issues. With fewer maintenance staff and crews, the result is increasing responsibility for more lane miles and right of way acreage per person. In addition, the Department is shifting toward statewide reduction of herbicide applications, meaning that other measures are needed to control weeds and unwanted vegetation on the roadside and in the State Right of Way.

3. Deficiency Summary:

There are existing risks associated with worker exposure to traffic as determined by frequency and duration of exposure, variety of maintenance crews in area. These risks can be decreased with installation of roadside safety improvements.

4. Project Proposal:

District Maintenance has identified 11 locations containing unpaved areas beyond the gore needing to be paved on Route 101 in San Mateo County within the project post-miles. The project proposes to pave those areas to reduce vegetation maintenance and enable mechanical sweeping, thus decreasing worker exposure while increasing public safety. Since the hydrology will be affected by the paving, the need for drainage modifications will have to be addressed.

In the course of investigation during the PA&ED phase, there may other locations identified as needing paving beyond the gore, maintenance vehicle pullouts (MVPs) or access gates.

R/W: All construction work including traffic control operations is anticipated to be performed within the State Right of Way. A Right of Way data sheet will be included in PA&ED phase.

Hazardous Waste: Hazardous material investigation and recommendations will be performed during the PA&ED and PS&E phases.

Stormwater: This project has anticipated soil disturbance, temporary water quality impacts resulting from the construction activities in this project will be addressed at PA&ED phase. A Storm Water Data Report (SWDR) will be included in PA&ED phase.

Hydraulics: The existing water flow lines will be affected by the proposed paving beyond the gore areas. District Hydraulics will need to investigate and provide recommendations for drainage modifications during the PA&ED and PS&E phases.

Environmental: This project is expected to have no economic, social or environmental impacts, and a Categorical Exemption is the anticipated environmental clearance document. Environmental analysis will performed during the PA&ED phase.

5. Programming

PROJECT CAPITAL COST		
Fiscal Year	**Right of Way Capital**	**Construction Capital**
FY14-15	$5,000	
FY15-16		$1,550,000

Key assumptions for cost estimate:

- Excavated soil is ADL contaminated
- No annual escalation factor

	PROJECT SUPPORT COMPONENTS								
	PA&ED 0 Phase		Design 1 Phase		Right of Way 2 Phase		Construction 3 Phase		Total
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's	0.6		0.8		0.2		1.2		2.8
Project Support in dollars ($K)	110		150		40		210		510

Key assumptions for support cost estimate:

- Support Cost 33% of Capital Cost
- $180,000 / PY

6. Schedule:

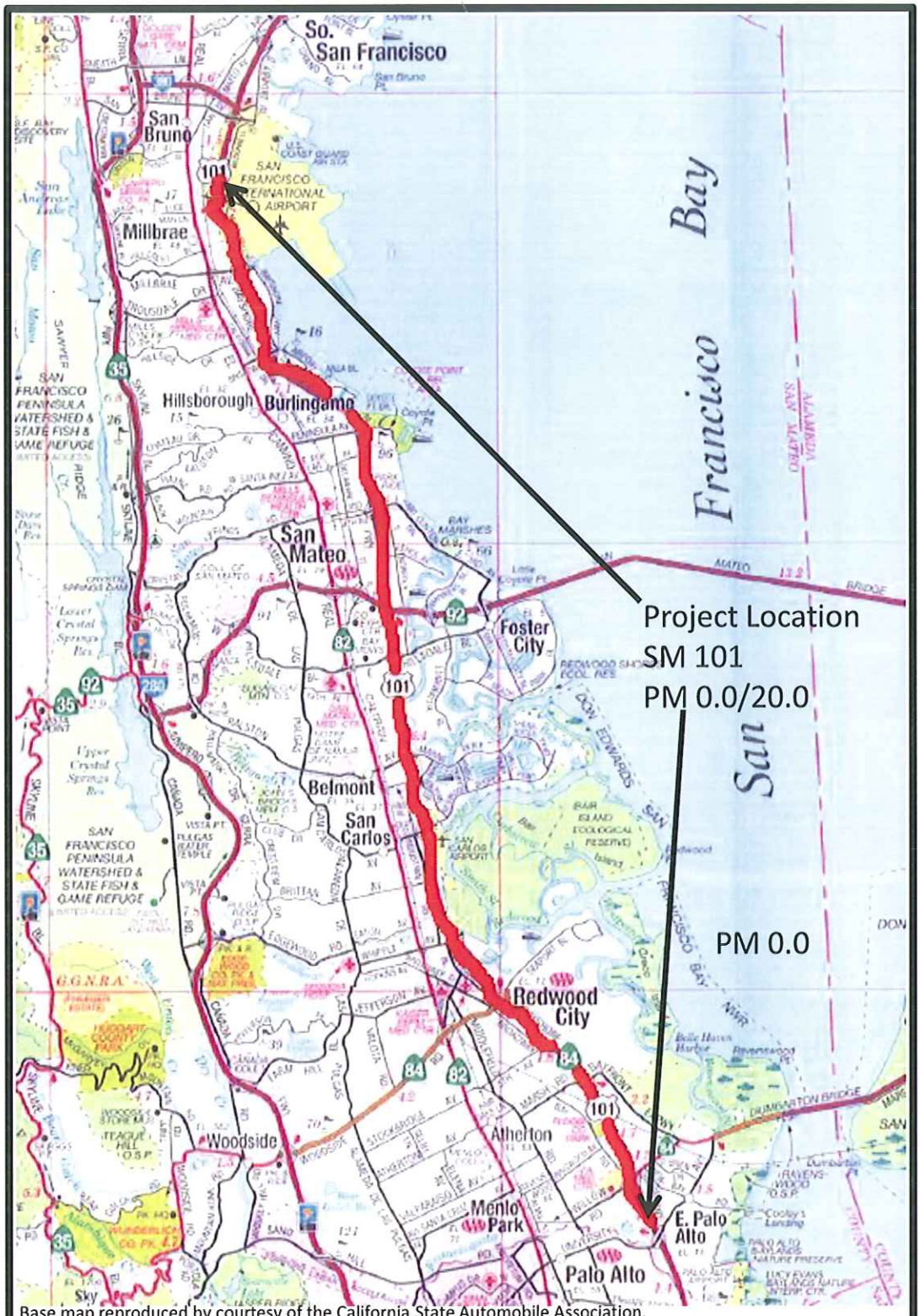
HQ Milestones	Delivery Date (Month, Day, Year)
PA & ED	9/30/2012
Regular Right of Way	9/30/2012
Project PS&E	9/30/2015
Right of Way Certification	9/30/2015
Ready to List	1/30/2016
Approve Contract	5/30/2016
Contract Acceptance	5/30/2017
End Project	2/30/2017

Key assumptions for the schedule:

- 120 working days
- No environmental schedule constraints

7. Attachments:

A. Project Location Map with Project Location List
B. Preliminary Cost Estimate



Base map reproduced by courtesy of the California State Automobile Association.

Project Location List

NO.	COUNTY	ROUTE	PM	LOCATION
1	SM	101	5.36-5.59	SB 101 from Woodside off ramp to Woodside undercross right shoulder
2	SM	101	10.9-11.13	NB Hillsdale off ramp between the off and O/C
3	SM	101	11.15-11.35	SB 101 at Hilldale off ramp to OC dirt strip and ditch line
4	SM	101	12.0-12.25	SB 101 between mainline and EB 92 collector and collector off Fashion Island Blvd
5	SM	101	12.0-12.25	SB 101 between mainline and EB 92 collector and collector off Fashion Island Blvd
6	SM	101	13.4-13.59	SB Shoulder strip between on and off ramps on
7	SM	101	13.4-13.59	SB Shoulder strip between on and off ramps on
8	SM	101	14.33	SB 101 Triangle between Poplar on and off ramp
9	SM	101	16.5-16.75	NB 101 Broadway between the off and on ramp
10	SM	101	16.7-16.78	NB 101 Broadway on Ramp between on and off
11	SM	101	17.75-17.8	NB 101 Millbrae Ave between collector and EB off ramp core

On Route 101 in San Mateo County between PM 0.0 and PM 20.0

Attachment A

PRELIMINARY COST ESTIMATE

Access Work		Yes/No	Quantity (unit)	Cost
(A)	Access Gates - Personnel			
(B)	Access Gates - Equipment			
(C)	Light Duty Access Trails			
	(a) All Weather Surface			
	(b) Graded Surface			
	(#) _____			
(D)	Shoulder Widening/Turnouts			
	(a) Paved Surface			
	(b) All Weather Surface			
	(c) Graded Surface			
	(#) _____			
(E)	Staircases			
(F)	Maintenance Vehicle Pullout			
	COSTS SUBTOTAL			

Vegetation Control Work	Yes/No	Quantity (unit)	Cost
(A) Vegetation control under Metal Beam Guard Rail			
(B) Vegetation control under Thrie Beam Barrier			
(C) Vegetation control around sign posts			
(D) Paving narrow areas			
(E) Paving areas beyond the gore			
Roadway Excavation	Yes	2600 (CY)	$520,000
Class 4 Aggregate Subbase	Yes	2600 (CY)	$91,000
Hot Mix Asphalt Concrete (Type A)	Yes	3000 (TON)	$300,000
COST SUBTOTALS			$911,000

Facility Relocation Work	Yes/No	Quantity (unit)	Cost
(A) Pull boxes			
(B) Irrigation valve boxes			

(C) Backflow preventer assemblies			
(D) Electrical control boxes			
(E) Traffic control boxes			
(F) Irrigation control boxes			
Modify Existing Irrigation Facilities	Yes	LS	$50,000
(G) State Utility Box Relocation	Yes	LS	$20,000
			$70,000

COST SUBTOTALS

Additional Work		Yes/No	Quantity (unit)	Cost
(A)	Traffic Control	Yes	LS	$100,000
(B)	Clearing and Grubbing	Yes	LS	$ 20,000
(C)	Other Landscape Related Work			
	Erosion Control	Yes	LS	$ 18,000
	Water Quality Control	Yes	LS	$ 20,000
(D)	Guardrail (include remove and replace)			
	(a) Metal Beam			
	(b) Concrete			
	(c) Bridge Approach			
	(#) _____			
(E)	Drainage Adjustment and Rehabilitation	Yes	LS	$100,000
(F)	Retaining Walls			

COST SUBTOTALS	$ 258,000
SUM OF SUBTOTALS	$1,239,000
25% Contingency	$ 309,750
TOTAL PROJECT COST	$1,548,750
Say	**$1,550,000**

Note: Key assumptions for the cost estimate:

- Roadway Excavation of ADL contaminated soil
- Proposed paved area structural section is assumed to be 1' Hot Mix Asphalt (HMA) and 1' Aggregate Sub-base (AS) Class 4 (typical roadway section)